

Title (en)

Mercury removal method and system

Title (de)

Verfahren und Vorrichtung zur Entfernung von Quecksilber

Title (fr)

Procédé et dispositif pour l'élimination de mercure

Publication

EP 1308198 A1 20030507 (EN)

Application

EP 02020950 A 20020919

Priority

JP 2001333972 A 20011031

Abstract (en)

The present invention provides a mercury removal method which can effectively remove very small amounts of mercury components present in a gas during wet gas purification such as coal or heavy oil gasification gas purification and petroleum refining. A mercury removal method for the removal of mercury present in a gas, the method comprising the steps of bringing a gas containing at least mercury and not less than 10 ppm of hydrogen sulfide into gas-liquid contact with an absorbing fluid under pressurized conditions so as to cause mercury to pass into the absorbing fluid; flashing the mercury-containing absorbing fluid under lower-pressure conditions to separate it into gaseous components and liquid components; and removing the mercury contained in the separated gaseous components by adsorption to an adsorbent. <IMAGE>

IPC 1-7

B01D 53/14; **B01D 53/64**; **C10K 1/10**

IPC 8 full level

B01D 53/14 (2006.01); **B01D 53/64** (2006.01); **C10J 3/02** (2006.01); **C10J 3/46** (2006.01); **C10K 1/08** (2006.01); **C10K 1/10** (2006.01); **C10K 1/12** (2006.01); **C10K 1/16** (2006.01)

CPC (source: EP US)

B01D 53/14 (2013.01 - EP US); **B01D 53/64** (2013.01 - EP US); **C10K 1/085** (2013.01 - EP US); **C10K 1/10** (2013.01 - EP US); **C10K 1/16** (2013.01 - EP US); **B01D 2257/602** (2013.01 - EP US)

Citation (search report)

- [XY] US 4863489 A 19890905 - SUGGITT ROBERT M [US]
- [Y] WO 0069991 A1 20001123 - MOBIL OIL CORP [US]
- [A] US 3661509 A 19720509 - FERRARA ITALO, et al
- [A] US 4500327 A 19850219 - NISHINO HIROSHI [JP], et al
- [A] US 4895708 A 19900123 - YAN TSOUNG Y [US]
- [A] US 4591490 A 19860527 - HORTON ROBERT L [US]
- [A] US 4044098 A 19770823 - MILLER ALVIN J, et al

Cited by

EP2493301A4; EP2517772A4; US8409329B2

Designated contracting state (EPC)

DE DK ES IT

DOCDB simple family (publication)

EP 1308198 A1 20030507; **EP 1308198 B1 20060607**; DE 60212041 D1 20060720; DE 60212041 T2 20061228; DK 1308198 T3 20060925; ES 2266375 T3 20070301; JP 2003138277 A 20030514; JP 3872677 B2 20070124; US 2003082085 A1 20030501; US 6770119 B2 20040803

DOCDB simple family (application)

EP 02020950 A 20020919; DE 60212041 T 20020919; DK 02020950 T 20020919; ES 02020950 T 20020919; JP 2001333972 A 20011031; US 23352602 A 20020904